

TYURMINA, L. O.

- a. Radio Contact with Venus - V. A. Kotelnikov
- b. Some Results of the Gravitational Geometric Field Measurements Carried Out from Sputnik III over the Territory of the USSR - S. Sh. Dolgikh, L. R. Kuznetsov, N. V. Kuznetsov, Tyurmina, L. O., I. V. Pavlov
- c. Some Results of Biological Reactions to Space Flight Conditions - G. G. Gerasimov, V. T. Krasovskiy
- d. On The Motion of the Body of the Variable Mass With the Constant Power Generation in the Gravitational Field - G. I. GROSZDOWSKIY, Y. H. Kuznetsov, V. V. Kuznetsov
- e. On The Hardest Solar Corpuscles - V. I. Krasovskiy
- f. Optimum Control Heat Rejection Wires Cooled by Radiation - G. L. Krasovskiy
- g. Investigation of Interplanetary Plasma and Planetary Ionospheres by Means of Charged Particle Beams on Space Rockets - K. I. Gering
- h. Rocket and Satellite Interplanetary Best Investigations - T. N. Kuznetsova
- i. On Investigation of Cosmic Radiation on Spacehips-Satellites. - G. H. Vetrov, Y. B. Kuznetsov, M. P. Piskunov, I. A. Savchenko, P. I. Shavrin. - UNCLASSIFIED

reports to be presented at the XIIth International Astronautical Congress,  
Washington D. C. 1-7 October 1961

(19)

S/169/61/000/008/043/053  
A006/A101

AUTHORS: Ben'kova, N.P., Tyurmina, L.O.

TITLE: Analytical concept of the geomagnetic field on the Soviet Union territory for the 1958 epoch

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 8, 1961, 34, abstract 8G240 ("Geomagnetizm i aeronomiya", 1961, v. 1, no. 1, 87 - 103)

TEXT: For the 1958 epoch, the geomagnetic field on the USSR territory is represented with the aid of coefficients of expansion of the geomagnetic potential in series in spheric harmonics. The results are compared with charts. A comparison is made of data pertaining to the East-Siberian zone of the global anomaly for a series of epochs, and secular changes of this anomaly are discussed.

The authors' summary ✓

[Abstracter's note: Complete translation]

Card 1/1

TYURMINA, L. O., FRYAZINOV, I. V., ZHUZGOV, L. N., PUSHKOV, N. V. and DOLGINOV, Sh. Sh.

"Some of the Constant Geomagnetic Field Measurements Carried out  
from Sputnik III over the Territory of the USSR"

Soviet Papers Presented at Plenary Meetings of Committee on Space Research  
(COSPAR) and Third International Space Symposium, Washington, D. C.,  
23 Apr - 9 May 62.

S/203/62/002/004/003/018  
IO46/I242

AUTHORS: Ben'kova, H.P., and Tyurmina, L.O.

TITLE: The magnetic field of the equatorial current

PERIODICAL: Geomagnetizm i aeronomiya, v.2, no.4, 1962, 635-641

TEXT: The authors calculate the magnetic field of the equatorial current ring for any point on the surface of the earth assuming that the current flows along a surface shaped like the force lines of the dipole field ( $r = a \sin^2 \psi$ ) and positioned symmetrically with respect to the equator. Agreement between the theoretical results and the experimental latitude distribution of the geomagnetic Dst variation is best obtained for a current ring with  $a = 9R_{\text{earth}}$  and for current density  $j = j_0(b + c \cos^2 \psi)$ . The magnetic moment of the ring (calculated for the magnetic storm of June 1, 1958),  $M = (4-5) \cdot 10^{25}$  CGSM agrees with the results of other authors (Ref. 5: E.H.Vestin. The geomagnetic field, its description and analysis. Washington, 1947). (Ref. 9: S.I.Akasofu, J.Cain, and S.Chapman.

Card 1/2

S/203/62/002/004/003/018  
I046/I242

The magnetic field of...

J. Geophys. Res., 1961, 66, No. 12, 4013-4026). The conclusions confirm the hypothesis that the extraionospheric current flows in two radiation belts with  $a = 3-5 R$  (the outer belt) and  $a = 9-10 R$  (the outermost, or third belt). There are 2 figures and 3 tables.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere, and Propagation of Radio Waves, AS USSR)

SUMBITTED: April 17, 1962

Card 2/2

ADAM, N.V.; BEN'KOVA, N.P.; ORLOV, V.P.; OSIPOV, N.K.; TYURMINA, L.O.

Spherical analysis of the constant magnetic field for the epochs  
1955 and 1958. Geomag. i aer. 2 no.5:949-96? S-O '62.

(MIRA 15:10)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln Sibirskogo otdeleniya AN SSSR i Institut matematiki  
s vychislitel'nym tsentrom Sibirskogo otdeleniya AN SSSR.  
(Magnetism, Terrestrial)

44449

S/203/62/002/006/004/020  
A160/A101

3.9110

AUTHORS: Dolginov, Sh. Sh., Zhuzgov, L. N., Pushkov, N. V., Tyurmina, L. O.,  
Fryazinov, I. V.

TITLE: Some results of measuring the constant magnetic field of the Earth  
with the third artificial sputnik of the Earth above the territory  
of the USSR

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 6, 1962, 1061 - 1075

TEXT: The author presents some results of measuring the constant magnetic  
field of the Earth with the help of the third Soviet sputnik above the territory  
of the USSR from May to June 1958. A brief description is given of the metro-  
logical properties of the used equipment and of the method of eliminating mag-  
netic board noises from the sputnik magnetograms. It was determined that the  
deviation may be represented by three harmonics whose mean amplitude values  
equal  $U_{1m} = 1,500$ ,  $U_{2m} = 500$  and  $U_{3m} = 200 \gamma$ . A comparison of the measured  
values of the geomagnetic field intensities with the values of this intensity  
permitted to establish their agreement within the limits of 0.1 - 1% above a

Card 1/2

S/203/62/002/006/004/020  
A160/A101

Some results of measuring the...

major part of the USSR territory, including the Siberian world magnetic anomaly. The conclusion is illustrated by a limited number of typical magnetograms obtained on the segments of the trajectories traversing the whole territory of the USSR. The material yielded by the magnetic investigations with the third Soviet sputnik permits to fully determine the possibilities of carrying out special magnetic experiments. 1) The main harmonics of the Gaussian series can be determined with a precision of 0.1%. 2) With the help of a long-lasting sputnik the real existence of the exterior sources of the magnetic field has to be found out, not taking into consideration the theoretical values of the field, computed from the ground data. 3) Regular work should be done on the secular variation of the geomagnetic field. 4) In order to obtain highly accurate data, the requirements for the complex of auxiliary equipment should be determined. There are 12 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln  
AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radio  
Wave Propagation, AS USSR)

SUBMITTED: July 10, 1962

Card 2/2



TYURMINA, L.O.

ADAM, N.V., BENKOVA, N.P., ORLOV, V.P., OSIPOV, N.K., TYURMINA, L.O.

Calculated magnetic field of the Earth, (USSR)

report submitted for the 4th International Space Science Symposium (COSPAR)  
Warsaw, 2-12 June 63

ADAM, N.V.; BEN'KOVA, N.P.; ORLOV, V.P.; OSIPOV, N.K.; TYURMINA, L.O.

Spherical analysis of the permanent geomagnetic field and  
secular variation. Geomag. i aer. 3 no.2:336-353 Mr-Apr '63.  
(MIRA 17:2)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln AN SSSR i Institut matematiki s vychislitel'ny  
tsentrom Sibirskogo otdeleniya AN SSSR.

ADAM, N.V.; BEN'KOVA, N.P.; ORLOV, V.P.; OSIPOV, N.K.; TYURMINA, L.O.

Spherical analysis of the constant geomagnetic field for the period  
1955 through 1958. Pt. 2. Geomag. i aer. 3 no.1:121-126 Ja-F '63.  
(MIRA 16:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln  
AN SSSR i Institut matematiki s vyshislitel'nyy tsentrom Sibirskogo  
otdeleniya AN SSSR.

(Magnetism, Terrestrial)

L-32098-65 ENT(1)/FCO/EEG(t) Po-4/P1-4 CM

ACCESSION NR: AR5005744

1954/55 PO-4 CM AR5005744

TITLE: Geomagnetic field at altitudes from zero to 15000 km for 1954/55 epoch

1954/55 PO-4 CM AR5005744

TITLE: Geomagnetic field at altitudes from zero to 15000 km for 1954/55 epoch

WITH SOURCE: Geomagnitnoye pole na vysofakh ot nulya do 15 000 km. dlya epochi 1954 g. [MIRAN, M., 1964, 62 str., ill., bibliogr., 1 map]

1954/55 PO-4 CM AR5005744

CHARACTER: The results of the investigation of the geomagnetic field at altitudes up to 15000 km are given. The investigation was made by the spherical harmonic analysis method. Maps of the geomagnetic field are given for 9 altitudes (up to 15000 km). The character of the altitude variation of the field is the same for all altitudes.

1954/55 PO-4 CM AR5005744

1954/55

1954/55

ADAM, N.V.; BEN'KOVA, N.P.; ORLOV, V.P.; OSIPOV, N.K.; TYURMINA, L.O.

Synthesis of the geomagnetic field according to the coefficients  
of spherical analysis. Geomag. i aer. 4 no.1:151-160 Ja-F'64.  
(MIRA 17:2)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln AN SSSR i Institut matematiki s vychislitel'ny  
tsentrom Sibirskogo otdeleniya AN SSSR.

ACCESSION NR: AP4043254

S/0203/64/004/004/0748/0752

AUTHOR: Adam, N. V., Ben'kova, N. P., Orlov, V. P., Osipov, N. K., Tyurmina, L. O.

TITLE: Analytical representation of secular variation

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 4, 1964, 748-752

TOPIC TAGS: geomagnetism, geomagnetic field, geomagnetic field secular variation, secular variation

ABSTRACT: A study has been made showing that an analytical representation of the secular variation (SV) of the geomagnetic field based on six harmonics is adequate for representation of world SV with the same degree of accuracy as world maps of SV compiled directly from observations at magnetic observatories; it is also shown that the analytical method can be used for compiling maps of SV. The synthesis of SV maps was accomplished using a grid with grid lines spaced  $5^\circ$  apart in longitude. The grid was somewhat more open to the south of  $60^\circ\text{S}$  and to the north of  $70^\circ\text{N}$ . The values  $\delta X$  and  $\delta Y$  were derived using the mean coefficients  $\delta g_n^m$  and  $\delta h_n^m$ , computed from  $\delta X$  and  $\delta Y$  in order to exclude the potential-free part. In accordance with the assumption of the existence of an outer part the values  $\delta Z$  were computed using  $\delta j_m^n$  and  $\delta K_m^n$ . The quality of the analytical maps was judged by compiling maps of the differences  $\Delta$  between the initial values  $\delta X$ ,  $\delta Y$

Card, 1/83

ACCESSION NR: AP4043254

and  $\delta Z$  used for analysis and the values obtained as a result of the synthesis. Figures 1 and 2 of the Enclosure show the IZMIRAN (Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation) maps of  $\Delta \delta X$  and  $\Delta \delta Y$ . The  $\Delta$  values are given in gammas; positive values are represented by solid and negative values by dashed isolines. The maximum discrepancies between the initial and new maps,  $+30\gamma$ , was in the southern hemisphere; in the northern hemisphere they did not exceed  $+10\gamma$ . The discrepancies in  $\delta X$ ,  $\delta Y$  and  $\delta Z$  on the IZMIRAN SV world maps do not have a regular pattern, except that in the southern hemisphere  $\Delta \delta Y$  is generally negative. The values  $\Delta \delta X$  and  $\Delta \delta Y$  are of the order of  $+5\gamma$  and only in the south polar cap do they attain  $40\gamma$  for  $\delta X$  and  $20\gamma$  for  $\delta Y$ . For  $\Delta \delta Z$  there is an increase to  $+15\gamma$  in the Atlantic and a sharp increase to  $60\gamma$  in the high latitudes of the southern hemisphere. The IZMIRAN maps also were compared with the values  $\delta X$ ,  $\delta Y$  and  $\delta Z$  directly at 53 magnetic observatories; the mean discrepancy for the three elements was  $+9\gamma$ . The analytical method is thus as accurate as graphic methods, but does not involve the subjectivism involved in use of the latter. However, graphic and analytical methods could be combined; the first is best for areas for which little data is available and the second is best for characterizing regions of rapid secular variations. Orig. art. has: 3 figures and 2 tables.

Card

2/73

ACCESSION NR: AP4043254

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR); Institut matematiki s vy\*chislitel'ny'm tsentrom, SO AN SSSR (Institute of Mathematics and the Computation Center, SO AN SSSR)

SUBMITTED: 04Feb64

ENCL: 04

SUB CODE: ES

NO REF SOV: 004

OTHER: 001

Card

3/11



AUTHOR: Adam N. V. Parikh, S. J. ...

TITLE: Height distribution of the geomagnetic field

heights (in ...)

1. 7051-65

values of the field. In evaluating the gradients on the basis of the  
results of measurements (for instance, in the case of a field)  
determine the mean gradient: between heights  $h_1$  and  $h_2$  at  $t_1$  and  $t_2$ .

"APPROVED FOR RELEASE: 08/31/2001

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APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757730010-0"

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**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001757730010-0"**

1 000 2 000 3 000 10 000 and 15 000 km from the earth's surface. Figures 1a

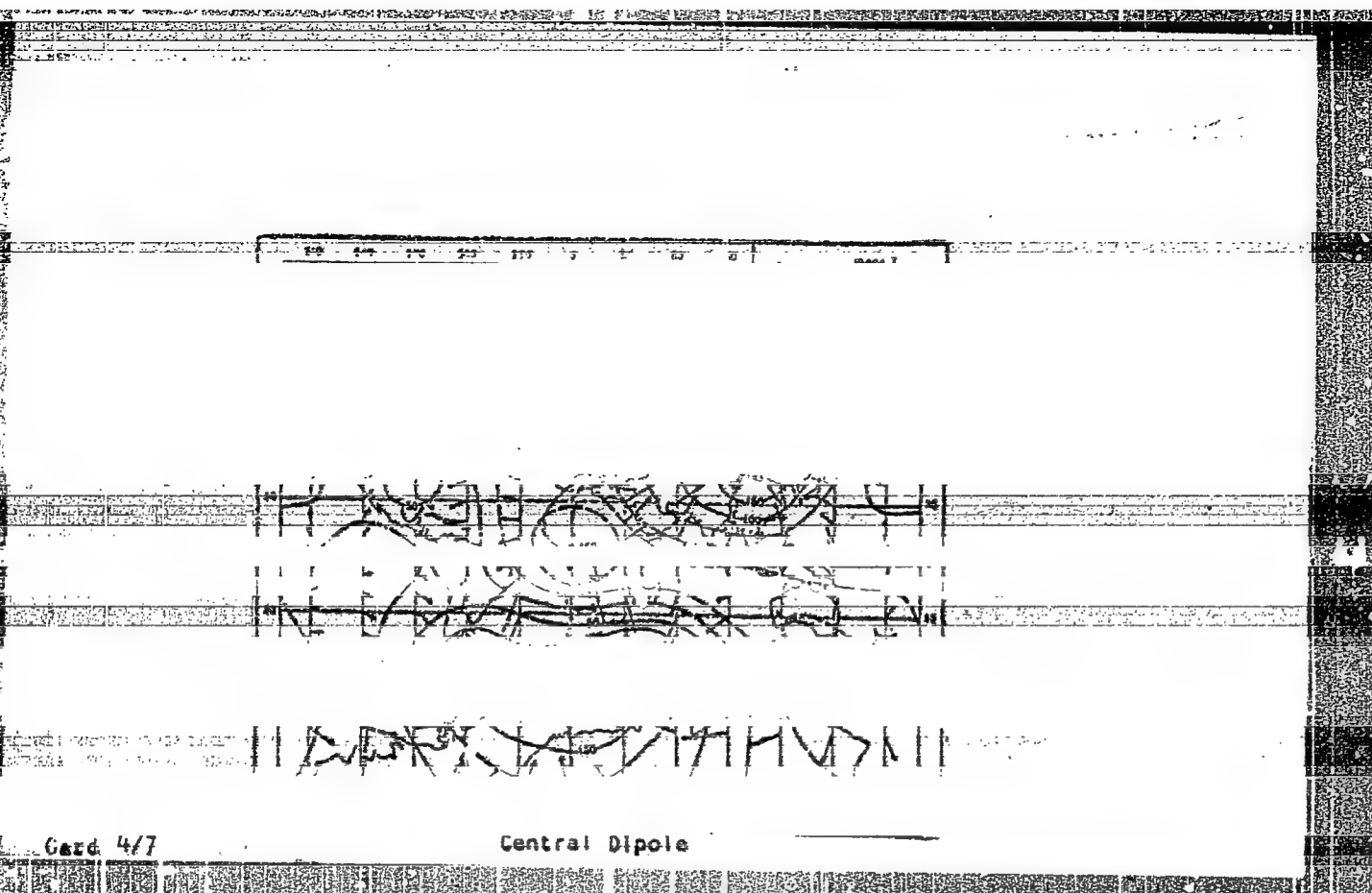
the residual field of a central dipole is generally greater than the residual field of an eccentric dipole by a factor of 1.2-1.3. At greater heights the difference between the residual fields is greater. It is concluded that the residual field of the eccentric dipole attenuates with height more rapidly; this appears to con-

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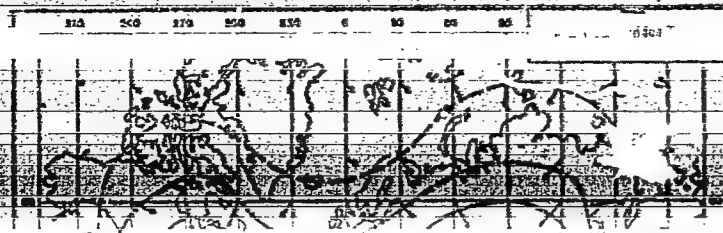


1 3319.62

ACCESSION NR: AP4045289

Continuation of Figure 1.

ENCLOSURE: 02



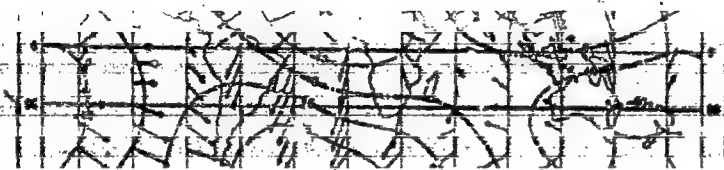
Case 5/7

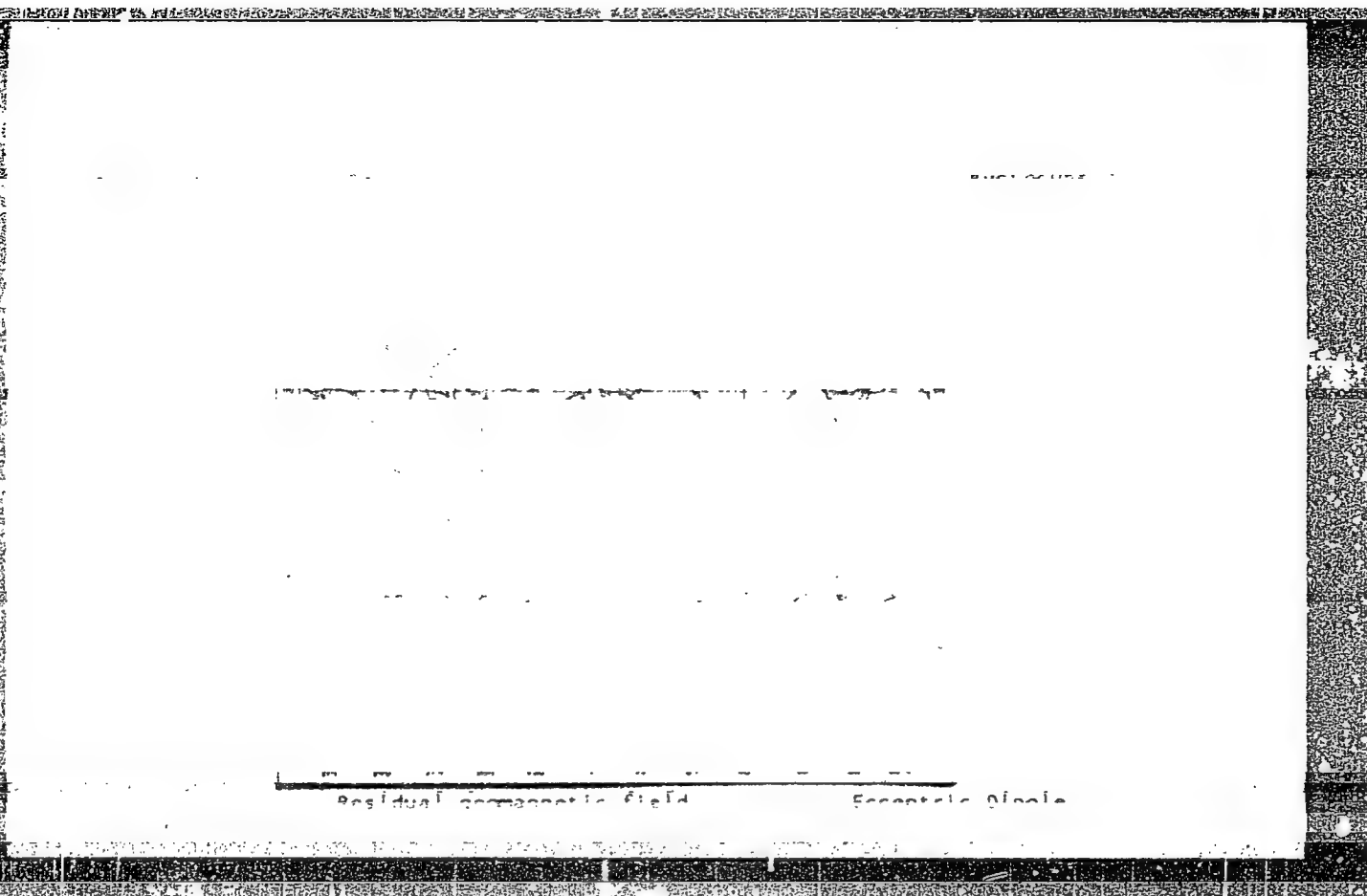
Residual geomagnetic field.

Eccentric dipole



L 9022 85





ADAM, N.V.; OSIPOV, N.K.; TYURMINA, L.O.; SHLYAKHTINA, A.P.

Spherical harmonic analysis of the world magnetic maps for the 1960 epoch. Geomag. i aer. 4 no.6:1130-1131 N-D '64.

(MIRA 18:1)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR i Institut matematiki s vychislitel'nyy tsentrom Sibirskogo otdeleniya AN SSSR.

AUTHOR: RUBIN, I. S.

TITLE: Computations of the geomagnetic field at high altitudes

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 3, 1965, 522-528

TOPIC TAGS: geomagnetic field, external geomagnetic field, spherical analysis

MAGNETIC FIELD WAS ... REACHING A MAXIMUM OF 1000 ...  
+ 400, increasing toward the Antarctic region and reaching a maximum of 1000 ...  
The disagreement decreased at higher altitudes. At 10,000 km it varied between  
+ 50%. These discrepancies are systematic in nature since large areas are covered

Card 1/2

positive differences (miscellaneous). Four maps are drawn representing the difference  
between the two sets of data. The first map shows the difference between the two sets of data.

L 23136-66 EWT(1)/FCO GW

ACC 2: AP6006677

SOURCE CODE: UR/0203/66/006/001/0179/0181

AUTHORS: Ben'kova, N. P.; Adam, N. V.; Tyurmina, L. O.

ORG: Institute of Terrestrial Magnetism, the Ionosphere, and Propagation of Radio Waves, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: On the accuracy of analyzing worldwide magnetic maps of 1960

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 1, 1966, 179-181

TOPIC TAGS: geomagnetic field, harmonic analysis, research ship

ABSTRACT: Distribution of total magnetic field was computed through coefficients of spherical harmonic analyses for 1960. Different combinations of spherical-harmonic coefficients were used to compute for each of the three rectangular coordinates of the field. Theoretical values of the field were then computed according to each set of coefficients. To evaluate the accuracy of this approach by spherical harmonics, comparisons were made between the values obtained here with values taken from worldwide magnetic maps for 1960. Checks were made of every

Card 1/2

UDC: 550.389 2

L 23136-66

ACC NR: AP6006677

5° of latitude and 15° of longitude. Comparisons were also made with data from the Zarya for the Pacific, Indian, and Atlantic Oceans for the period 1957-63, reduced to 1960. Checks were made at 372 points. The theoretical values were also compared with average values from magnetic observatories. Variation in field (for horizontal component) was computed to be 260 γ, was measured as 286 γ on the Zarya, and 290 γ at land observatories. The difference between computed values and the Zarya values for the points of comparison are plotted on a world map, and isopleths of difference are drawn. Orig. art. has: 1 figure and 1 table.

SUB CODE: 08/ SUBM DATE: 06Jul65/ ORIG REF: 001

Card 2/2 PB

L 07491-67 ENT(1)/ECG GW/GD  
ACC NR: AT6021012 (A, N)

SOURCE CODE: UR/0000/65/000/000/0033/0041

AUTHOR: Adam, N. V.; Ben'kova, N. P.; Orlov, V. P.; Tyurmina, L. O. 32

ORG: none

TITLE: Calculation of the geomagnetic field strength based on the coefficients of spherical analysis

SOURCE: AN SSSR. Institut fiziki Zemli. Nastoyashcheye i proshloye magnitnogo polya Zemli (The present and past of the earth's magnetic field). Moscow, Izd-vo Nauka, 1965, 33-41

TOPIC TAGS: geomagnetic field, geomagnetic measurement, magnetic field intensity, cartography

ABSTRACT: This article is devoted to a calculation of the geomagnetic field strength based on the coefficients of spherical analysis in order to obtain information on the distribution and character of the change of the geomagnetic field at various distances from the earth's surface. The first step in this work was to determine the coefficients of a spherical harmonic series in order to calculate the geomagnetic field in circumterrestrial space. The starting data were the magnetic charts of the IZMIRAN and the British Admiralty for the 1955 epoch and the values of the magnetic elements at unevenly distributed discrete points. A subsequent synthesis of the field on the earth's surface and its comparison with the starting data showed that the best repre-

Card 1/3



L 07491-67

ACC NR: AT6021012

resentation of the field is given by the coefficients calculated with respect to world charts. The elements X, Y, Z were calculated by the sum of the first six harmonics for a network of points  $5^\circ$  with respect to latitude and  $15^\circ$  with respect to longitude. The coefficients obtained from the IZMIRAN charts were used for further calculations. It was found that spherical analysis carried out for world magnetic charts gives an analytical representation of the distribution of the field on the earth's surface with the same degree of flatness and with the same errors as the world magnetic charts on which the analysis was based. Spherical analysis offers a sufficiently simple and easy method of calculating the magnetic field and its gradients for large heights. The absolute errors of calculation decrease with height in proportion to  $(R/r)^3$  or even more quickly, but the relative errors remain constant or decrease slightly. Taking this into account, as well as the rapid decrease of old harmonics with height, the authors assert that at large heights the series of spherical harmonics provide a high accuracy of approximating the magnetic field sufficient for various problems of investigating a constant field and for interpreting satellite observations. An analysis of the 1955 IZMIRAN charts confirmed the systematic shift of the earth's magnetic center. The theories of the origin of the geomagnetic field scarcely touched upon the problem of the eccentricity of the field and the authors wish to call the very fact of eccentricity and the systematic shift of the magnetic center to the attention of theoreticians. The representation of smoothed world charts by series of spherical harmonics up to the sixth order is not, in the opinion of the authors, the limit of what spherical analysis can give. With a sufficiently large number of observations pertaining to one epoch, a spherical harmonic series can provide a more detailed picture of the

Card 2/3

L 07491-67

ACC NR: AT6021012

field and with fewer errors. Orig. art. has: 11 formulas, 3 tables, and 4 figures.

SUB CODE: 08/ SUBM DATE: 21Sep65/ ORIG REF: 008/ OTH REF: 004

Card 3/3/nb

TYURINA, M. M.

Physiological characteristics of plants in the Pamirs. Trudy  
Bot. inst. AN Tadzh. SSR. 18:334-352 '62.  
(MIRA 16:1)

(Pamirs--Plant physiology)

TYURMENKO, G.A., kand.sel'skokhoz.nauk

Harvesting, drying, and storing lupine seeds. Zemledelie 6 no.8:  
74-76 Ag '58. (MIRA 12:11)

(Lupine)

BEN'KOVA, N.P.; TYURMINA, L.O.

Analytical representation of the geomagnetic field on the territory of the Soviet Union for the 1958 epoch. Geomag. i aer. 1 no.1: 87-103 Ja-F '61. (MIRA 14:7)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.  
(Magnetism, Terrestrial)

TYURMOREZOV, V. Ye.

N/5  
653.021  
.B1

Telegrafiya [Telegraphy, BY] I. Ya. Balagin, V. P. Popov, [1] V. Ye.  
Tyurmorezov. Moskva, Transzheldorizdat, 1958.  
462 p. illus., Diagr., Graphs, Tables.  
"Literatura". p. 449.

TYURMOREZOV, Viktor Yevgrafovich, inzh.; KIRILOV, Mikhail Mikhaylovich,  
kand. tekhn. nauk; KOZLOV, Lev Nikolayevich, inzh.; KRUMIN, Ye.A.,  
kand. tekhn. nauk, retsenzent; POZDNYAKOV, L.G., inzh., retsenzent;  
FEL'DMAN, A.B., inzh., retsenzent; KAZAKOV, A.A., kand. tekhn.  
nauk, red.; MEDVEDEVA, M.A., tekhn. red.

[Electric power supply to railroad communications, apparatus and  
automatic control, and remote control systems] Elektropitanie  
ustroistv svyazi, avtomatiki i telemekhaniki na zheleznodorozhnom  
transporte. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va  
putei soobshcheniya, 1961. 215 p. (MIRA 14:11)

(Electric power supply to apparatus)  
(Railroads--Electric equipment)

TYURMOREZOV, V Ye

6(7)

PHASE I BOOK EXPLOITATION

SOV/1291

Balagin, Ivan Yakovlevich, Vadim Petrovich Popov, and Viktor Yevgrafovich Tyurmorezov

Telegrafiya (Telegraphy) Moscow, Transzheldorizdat, 1958. 462 p.  
7,000 copies printed.

Ed.: Stroganov, L.P., Engineer; Tech. Ed.: Khitrov, P.A.

PURPOSE: This book was approved by the Main Administration of Educational Institutions, USSR Ministry of Railroads, as a textbook for students of railroad automation, telemechanics and communications. It may also be used by engineers and technicians in these fields.

COVERAGE: The author describes fundamentals of the theory of telegraph communication and discusses the circuits and construction details of telegraph apparatus used in railroad communications. The author mentions A.D. Ignat'yev, L.N. Gur'yev, and G.P. Kozlov as having done work on the multiplexing of telegraph circuits and and radio channels in 1936. Also mentioned are Engineers . . .

Card 1/18



# Telegraphy

SOV/1291

N.A. Volkov, N.G. Gagarin, and S.I. Chasovikov, who in 1935 developed the ST-35 start-stop equipment. I.Ya. Balagin wrote the Introduction and Chapters I through XIII; V.P. Popov wrote Chapters XIV through XXII and Chapters XXVIII and XXIX; V. Ye. Tyurmorezov wrote Chapters XXIV through XXVII. There are 18 references, all Soviet.

## TABLE OF CONTENTS:

Introduction	3
PART I. GENERAL INFORMATION	6
Ch. I. Basic Concepts	6
1. Principle of telegraph communication	6
2. Telegraph codes	7
3. Basic methods of telegraphy	10
4. Classification of telegraph apparatus	14
5. Operating principle of uniform code apparatus	15
6. Basic methods of correction	18
Card 2/18	

TYURLIKOV, V. I.

"Theoretical Basis for Increasing the Effectiveness of the Action of Fatty Acids in the Flotation of Oxidized Ores."

report presented at the Conference on Beneficiation of Useful Minerals, sponsored by the Learned Council of the IGD, AS USSR, Balakhash/Karagands, 29 Nov - 4 Dec 1960.

TYURNIKOV, V. I.

USSR/Physical Chemistry. Surface Phenomena. Adsorption.  
Chromatography. Ion Exchange.

B-13

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22551.

Author : I. N. Plaksin, V. I. Tyurnikov.

Inst : Not given

Title : Examination of Xanthogenate Fixation Stability on Chalcopyrite Grain Surface.

Orig Pub : Izv. AN USSR, Otd. Tekhn. N. 1956, No 8, 140-142.

Abstract : The stability of a series of xanthogenates (X) on chalcopyrite (I) grain surface is examined by method of radioactive isotopes. The determination of desorption of X was carried out by the way of washing off in a special mixer of an average sample of chalcopyrite concentrate obtained by flotation of the mixture of I and quartz X marked  $S^{35}$ , and of pine oil in a lime medium. It is shown that the fixation X stability, insignificant at small expenditures of X (25-50 g/t), grows with the increase of X expenditure till 300g, and falls again at further increase of X expenditure till 600 g/t. The comparison of desorption of different X from I surfaces showed that the desorption of ethyl X is much faster than that of the butyl and isoamyl X.

Card 1/1

-196-

TYURIKOV, V.N., inzh.

Undulating wear of rails and how to combat it. Put' i put.  
khoz. no.10:33-35 0 '59. (MIRA 13:2)

1. Starshiy dorozhnyy master rel'sozhifoval'nogo vagona,  
Leningrad.

(Railroads--Rails)

(Railroads--Maintenance and repair)

TYURINA, Ye.V.

Biology of flowering and seed maturation in the Moldavian dragonhead  
(*Dracocephalum moldavica* L.) Trudy Bot. sada Zap.-Sib. fil. AN SSSR  
2:19-23 '57. (Dragonhead) (MIRA 11:10)

TYURINA, Ye.V.

Biology of germination in coriander fruit. Trudy Bot. sada Zap.-Sib.  
fil. AN SSSR no.2:41-46 '57. (MIRA 11:10)  
(Coriander) (Germination)

End

# 631